

R317. Environmental Quality, Water Quality.

R317-6. Ground Water Quality Protection.

R317-6-1. Definitions.

1.1 "Aquifer" means a geologic formation, group of geologic formations or part of a geologic formation that contains sufficiently saturated permeable material to yield usable quantities of water to wells and springs.

1.2 "Background Concentration" means the arithmetic mean for the concentration of a pollutant in ground water upgradient or lateral hydraulically equivalent point from a facility, practice or activity or at a compliance monitoring point and which has not been affected by that facility, practice or activity.

1.3 "Best Available Technology" means the application of design, equipment, work practice, operation standard or combination thereof at a facility to effect the maximum reduction of a pollutant achievable by available processes and methods taking into account energy, public health, environmental and economic impacts and other costs.

1.4 "Best Available Technology Standard" means a performance standard or pollutant concentration achievable through the application of best available technology.

1.5 "Board" means the Utah Water Quality Board.

1.6 "Class TDS Limit" means the upper boundary of the TDS range for an applicable class as specified in Section R317-6-3.

1.7 "Community Drinking Water System" means a public drinking water system which serves at least fifteen service connections used by year-round residents or regularly serves at least twenty-five year-round residents.

1.8 "Comparable Quality (Source)" means a potential alternative source or sources of water supply which has the same general quality as the ground water source.

1.9 "Comparable Quantity (Source)" means a potential alternative source of water supply capable of reliably supplying water in quantities sufficient to meet the year-round needs of the users served by the ground water source.

1.10 "Compliance Monitoring Point" means a well, seep, spring, or other sampling point used to determine compliance with applicable permit limits.

1.11 "Contaminant" means any physical, chemical, biological or radiological substance or matter in water.

1.12 "Conventional Treatment" means normal and usual treatment of water for distribution in public drinking water supply systems including flocculation, sedimentation, filtration, disinfection and storage.

1.13 "Discharge" means the release of a pollutant directly or indirectly into subsurface waters of the state.

1.14 "Existing Facility" means a facility or activity that was in operation or under construction after August 14, 1989 and before February 10, 1990.

1.15 "Economically Infeasible" means, in the context of a public drinking water source, the cost to the typical water user for replacement water would exceed the community's ability to pay.

1.16 "Executive Secretary" means the Executive Secretary of the Utah Water Quality Board.

1.17 "Facility" means any building, structure, processing, handling, or storage facility, equipment or activity; or contiguous group of buildings, structures, or processing, handling or storage facilities, equipment, or activities or combination thereof.

1.18 "Gradient" means the change in total water pressure head per unit of distance.

1.19 "Ground Water" means subsurface water in the zone of saturation including perched

ground water.

1.20 "Ground Water Quality Standards" means numerical contaminant concentration levels adopted by the Board in or under R317-6-2 for the protection of the subsurface waters of the State.

1.21 "Infiltration" means the movement of water from the land surface into the pores of rock, soil or sediment.

1.22 "Institutional Constraints" means legal or other restrictions that preclude replacement water delivery and which cannot be alleviated through administrative procedures or market transactions.

1.23 "Lateral Hydraulically Equivalent Point" means a point located hydraulically equal to a facility and in the same ground water with similar geochemistry such that the ground water at that point has not been affected by the facility.

1.24 "Limit of Detection" means the concentration of a chemical below which it can not be detected using currently accepted sampling and analytical techniques for drinking water as determined by the U.S. Environmental Protection Agency.

1.25 "New Facility" means a facility for which construction or modification is initiated after February 9, 1990.

1.26 "Permit Limit" means a ground water pollutant concentration limitation specified in a Ground Water Discharge Permit and may include protection levels, class TDS limits, ground water quality standards, alternate concentration limits, permit-specific ground water quality standards, or limits stipulated in the application and use of best available technology. For facilities permitted by rule under R317-6-6.2, a permit limit is a ground water pollutant concentration limitation specified in R317-6-6.2.B.

1.27 "Person" means any individual, corporation, partnership, association, company or body politic, including any agency or instrumentality of the federal, state, or local government.

1.28 "Point of Discharge" means the area within outermost location at which effluent or leachate has been stored, applied, disposed of, or discharged; for a diked facility, the outermost edge of the dikes.

1.29 "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, sewage sludge, garbage, munitions, trash, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into waters of the state.

1.30 "Pollution" means such contamination, or other alteration of the physical, chemical, or biological properties of any waters of the State, or such discharge of any liquid, gaseous, or solid substance into any waters of the state as will create a nuisance or render such waters harmful or detrimental or injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

1.31 "Protection Level" means the ground water pollutant concentration levels specified in R317-6-4.

1.32 "Substantial Treatment" means treatment of water utilizing specialized treatment methods including ion exchange, reverse osmosis, electrodialysis and other methods needed to upgrade water quality to meet standards for public water systems.

1.33 "Technology Performance Monitoring" means the evaluation of a permitted facility to determine compliance with best available technology standards.

1.34 "Total Dissolved Solids (TDS)" means the quantity of dissolved material in a sample of water which is determined by weighing the solid residue obtained by evaporating a measured

volume of a filtered sample to dryness; or for many waters that contain more than 1000 mg/l, the sum of the chemical constituents.

1.35 "Radius of Influence" means the radial distance from the center of a well bore to the point where there is no lowering of the water table or potentiometric surface because of pumping of the well; the edge of the cone of depression.

1.36 "Upgradient" means a point located hydraulically above a facility such that the ground water at that point has not been impacted by discharges from the facility.

1.37 "Vadose Zone" means the zone of aeration including soil and capillary water. The zone is bound above by the land surface and below by the water table.

1.38 "Waste" see "Pollutant."

1.39 "Water Table" means the top of the saturated zone of a body of unconfined ground water at which the pressure is equal to that of the atmosphere.

1.40 "Water Table Aquifer" means an aquifer extending downward from the water table to the first confining bed.

1.41 "Waters of the State" means all streams, lakes, ponds, marshes, water courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof; except bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance or a public health hazard, or a menace to fish and wildlife, shall not be considered to be "waters of the state" under this definition.

1.42 "Zone of Influence" means the area contained by the outer edge of the drawdown cone of a water well.

R317-6-2. Ground Water Quality Standards.

2.1 The following Ground Water Quality Standards as listed in Table I are adopted for protection of ground water quality.

TABLE 1
GROUND WATER QUALITY STANDARDS

Parameter on analysis compounds	Milligrams per liter (mg/l) unless of filtered sample except for Mercury	noted otherwise and based and organic
---------------------------------------	---	--

PHYSICAL CHARACTERISTICS

Color (units)	15.0
Corrosivity (characteristic)	noncorrosive
Odor (threshold number)	3.0
pH (units)	6.5-8.5

INORGANIC CHEMICALS

<u>Asbestos (fibers/l greater than 10 um length)</u>	<u>7.0+06</u>
Cyanide (free)	0.2
Fluoride	4.0
Nitrate (as N)	10.0
Nitrite (as N)	1.0
Total Nitrate/Nitrite (as N)	10.0
<u>Sulfate</u>	<u>250</u>

METALS

Arsenic	0.05
<u>Antimony</u>	<u>0.006</u>
Barium	2.0
<u>Beryllium</u>	<u>0.004</u>
Cadmium	0.005
Chromium	0.1
Copper	1.3
Lead	0.015
Mercury	0.002
Selenium	0.05
Silver	0.1
<u>Thallium</u>	<u>0.002</u>
Zinc	5.0

ORGANIC CHEMICALS

Pesticides and PCBs	
Alachlor	0.002
Aldicarb	0.00[3]7
Aldicarb sulfone	0.00[2]7
Aldicarb sulfoxide	0.00[4]7

Atrazine	0.003	
Carbofuran	0.04	
Chlordane	0.002	
<u>Dalapon (sodium salt)</u>	<u>0.2</u>	
Dibromochloropropane(<u>DBCP</u>)		0.0002
<u>[2, 4-D] Dinoseb</u>	<u>0.[07]007</u>	
<u>Diquat</u>	<u>0.02</u>	
Dichlorophenoxyacetic acid (2, 4-) (2,4D)		0.07
<u>Endothall</u>	<u>0.1</u>	
Endrin	0.002	
Ethylene Dibromide(<u>EDB</u>)		0.00005
Heptachlor	0.0004	
Heptachlor epoxide	0.0002	
<u>Glyphosate</u>	<u>0.7</u>	
Lindane	0.0002	
Methoxychlor	0.04	
<u>Oxamyl(Vydate)</u>	<u>0.2</u>	
Polychlorinated Biphenyls		0.0005
Pentachlorophenol	0.001	
<u>Picloram</u>	<u>0.5</u>	
Toxaphene	0.003	
<u>Simazine</u>	<u>0.004</u>	
2, 4, 5-TP (Silvex)	0.05	
<u>1,2-Dibromo-3-chloropropane (DBCP)</u>		<u>0.0002</u>

VOLATILE ORGANIC CHEMICALS

Benzene	0.005	
<u>Benzo(a)pyrene (PAH)</u>	<u>0.0002</u>	
Carbon tetrachloride	0.005	
<u>[1, 2-Dichloroethane] Dichloromethane</u>		0.005
<u>[1, 1-Di(2-ethylhexyl)adipate</u>	<u>0.4Di</u>	
<u>(2-ethylhexyl)phthalate</u>	<u>0.006</u>	
<u>Dioxin(2,3,7,8-TCDD)</u>	<u>0.00000003</u>	
<u>Dichloroethane (1,2-)</u>	<u>0.005</u>	
Dichloroethylene (1,1-)	0.007	
<u>[1, 1, 1-Trichloroethane] Dichloropropane (1,2-)</u>	<u>0.[200]005</u>	
para - Dichlorobenzene	0.075	
o-Dichlorobenzene	0.6	
cis-1,2 dichloroethylene	0.07	
trans-1,2 dichloroethylene	0.1	
<u>[1,2-Dichloropropane</u>	<u>0.005]</u>	
Ethylbenzene	0.7	
<u>Hexachlorobenzene</u>	<u>0.001</u>	
<u>Hexachlorocyclopentadiene</u>	<u>0.05</u>	
Monochlorobenzene	0.1	
Styrene	0.1	

Tetrachloroethylene	0.005
Toluene	1
Trichlorobenzene (1,2,4-)	0.07
Trichloroethane (1,1,1-)	0.200
Trichloroethane (1,1,2-)	0.005
Trichloroethylene	0.005
Vinyl chloride	0.002
Xylenes (Total)	10

OTHER ORGANIC CHEMICALS

Trihalomethanes Bromodichloromethane (THM)	0.08
Bromoform (THM-Tribromomethane)	0.08
Chloroform (THM-Trichloromethane)	0.08
Dibromochloromomethane (THM)	0.08
Total Trihalomethanes (TTHM)	0.08
Bromate	0.[+] <u>01</u>
Chloramine	4.0
Chlorine	4.0
Chlorine Dioxide	0.8
Chlorite	1.0
Dichloroacetic acid	0.06
Monochloroacetic acid	0.06
Epichlorohydrin	Zero
Acrylamide	Zero

RADIONUCLIDES

The following are the maximum contaminant levels for Radium-226 and Radium-228, and gross alpha particle radioactivity, beta particle radioactivity, ~~and~~ photon radioactivity and uranium concentration:

Combined Radium-226 and Radium-228 5pCi/l

Gross alpha particle activity,
including Radium-226 but
excluding Radon and Uranium 15pCi/l

Uranium 0.030 mg/l

Beta particle and photon radioactivity

The average annual concentration from man-made radionuclides of beta particle and photon radioactivity from man-made radionuclides shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/year.

Except for the radionuclides listed below, the concentration of man-made radionuclides causing

four millirem total body or organ dose equivalents shall be calculated on the basis of a two liter per day drinking water intake using the 168 hour data listed in "Maximum Permissible Body Burden and Maximum Permissible Concentration Exposure", NBS Handbook 69 as amended August 1962, U.S. Department of Commerce. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed four millirem/year.

Average annual concentrations assumed to produce a total body or organ dose of four millirem/year:

Radionuclide	Critical Organ	pCi per liter
Tritium	Total Body	20,000
Strontium-90	Bone Marrow	8

2.2 A permit specific ground water quality standard for any pollutant not specified in Table 1 may be established by the Executive Secretary at a level that will protect public health and the environment. This permit limit may be based on U.S. Environmental Protection Agency maximum contaminant level goals, health advisories, risk based contaminant levels, standards established by other regulatory agencies and other relevant information.

R317-6-3. Ground Water Classes.

3.1 GENERAL

The following ground water classes are established: Class IA - Pristine Ground Water; Class IB - Irreplaceable Ground Water; Class IC - Ecologically Important Ground Water; Class II - Drinking Water Quality Ground Water; Class III - Limited Use Ground Water; Class IV - Saline Ground Water.

3.2 CLASS IA - PRISTINE GROUND WATER

Class IA ground water has the following characteristics:

- A. Total dissolved solids of less than 500 mg/l.
- B. No contaminant concentrations that exceed the ground water quality standards listed in Table 1.

3.3 CLASS IB - IRREPLACEABLE GROUND WATER

Class IB ground water is a source of water for a community public drinking water system for which no reliable supply of comparable quality and quantity is available because of economic or institutional constraints.

3.4 CLASS IC - ECOLOGICALLY IMPORTANT GROUND WATER

Class IC ground water is a source of ground water discharge important to the continued existence of wildlife habitat.

3.5 CLASS II - DRINKING WATER QUALITY GROUND WATER

Class II ground water has the following characteristics:

- A. Total dissolved solids greater than 500 mg/l and less than 3000 mg/l.
- B. No contaminant concentrations that exceed ground water quality standards in Table 1.

3.6 CLASS III - LIMITED USE GROUND WATER

Class III ground water has one or both of the following characteristics:

- A. Total dissolved solids greater than 3000 mg/l and less than 10,000 mg/l, or;
- B. One or more contaminants that exceed the ground water quality standards listed in Table 1.

3.7 CLASS IV - SALINE GROUND WATER

Class IV ground water has total dissolved solids greater than 10,000 mg/l.

R317-6-4. Ground Water Class Protection Levels.

4.1 GENERAL

A. Protection levels are ground water pollutant concentration limits, set by ground water class, for the operation of facilities that discharge or would probably discharge to ground water.

B. For the physical characteristics (color, corrosivity, odor, and pH) and radionuclides listed in Table 1, the values listed are the protection levels for all ground water classes.

4.2 CLASS IA PROTECTION LEVELS

A. Class IA ground water will be protected to the maximum extent feasible from degradation due to facilities that discharge or would probably discharge to ground water.

B. The following protection levels will apply:

1. Total dissolved solids concentration may not exceed the lesser of 1.1 times the background [value] concentration or 500 mg/l.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.1 times the ground water quality standard value, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.1 times the background concentration or 0.1 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed to exceed the ground water quality standard.

4.3 CLASS IB PROTECTION LEVELS

A. Class IB ground water will be protected as an irreplaceable source of drinking water.

B. The following protection levels will apply:

1. The Total dissolved solids concentration may not exceed the lesser of 1.1 times the background [value] concentration or 2000 mg/l.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.1 times the ground water quality standard, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.1 times the background concentration or 0.1 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed to exceed the ground water quality standard.

4.4 CLASS IC PROTECTION LEVELS

Class IC ground water will be protected as a source of water for potentially affected wildlife habitat. Limits on increases of total dissolved solids and organic and inorganic chemical compounds will be determined in order to meet applicable surface water standards.

4.5 CLASS II PROTECTION LEVELS

A. Class II ground water will be protected for use as drinking water or other similar beneficial use with conventional treatment prior to use.

B. The following protection levels will apply:

1. The Total dissolved solids concentration may not exceed 1.25 times the background [value] concentration.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.25 times the ground water quality standard, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.25 times the background concentration or 0.25 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed to exceed the ground water quality standard.

4.6 CLASS III PROTECTION LEVELS

A. Class III ground water will be protected as a potential source of drinking water, after substantial treatment, and as a source of water for industry and agriculture.

B. The following protection levels will apply:

1. The Total dissolved solids concentration may not exceed 1.25 times the background concentration level.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.5 times the ground water quality standard, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.5 times the background concentration or 0.5 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed to exceed the ground water quality standard. If the background concentration exceeds the ground water quality standard no increase will be allowed.

4.7 CLASS IV PROTECTION LEVELS

Protection levels for Class IV ground water will be established to protect human health and the environment.

R317-6-5. Ground Water Classification for Aquifers.

5.1 GENERAL

A. When sufficient information is available, entire aquifers or parts thereof may be classified by the Board according to the quality of ground water contained therein and commensurate protection levels will be applied.

B. Ground water sources furnishing water to community drinking water systems with ground water meeting Class IA criteria are classified as Class IA.

5.2 CLASSIFICATION AND RECLASSIFICATION PROCEDURE

A. The Board may initiate classification or reclassification.

B. Any person may petition the Board for classification and reclassification.

C. Boundaries for class areas will be delineated so as to enclose distinct ground water classes as nearly as known facts permit. Boundaries will be based on hydrogeologic properties, existing ground water quality and for Class IB and IC, current use. Parts of an aquifer may be classified differently.

D. The petitioner requesting reclassification will provide sufficient information to determine if reclassification is in the best interest of the beneficial users.

E. A petition for classification or reclassification shall include:

1. factual data supporting the proposed classification;
2. a description of the proposed ground waters to be classified or reclassified;
3. potential contamination sources;
4. ground water flow direction;
5. current beneficial uses of the ground water; and
6. location of all water wells in the area to be classified or reclassified.

F. One or more public hearings will be held to receive comment on classification and

reclassification proposals.

G. The Board will determine the disposition of all petitions for classification and reclassification, except as provided in R317-6-5.2.H.

H. Ground water proximate to a facility for which an application for a ground water discharge permit has been made may be classified by the Executive Secretary for purposes of making permitting decisions.

R317-6-6. Implementation.

6.1 DUTY TO APPLY FOR A GROUND WATER DISCHARGE PERMIT

A. No person may construct, install, or operate any new facility or modify an existing or new facility, not permitted by rule under R317-6-6.2, which discharges or would probably result in a discharge of pollutants that may move directly or indirectly into ground water, including, but not limited to land application of wastes; waste storage pits; waste storage piles; landfills and dumps; large feedlots; mining, milling and metallurgical operations, including heap leach facilities; and pits, ponds, and lagoons whether lined or not, without a ground water discharge permit from the Executive Secretary. A ground water discharge permit application should be submitted at least 180 days before the permit is needed.

B. All persons who constructed, modified, installed, or operated any existing facility, not permitted by rule under R317-6-6.2, which discharges or would probably result in a discharge of pollutants that may move directly or indirectly into ground water, including, but not limited to: land application of wastes; waste storage pits; waste storage piles; landfills and dumps; large feedlots; mining, milling and metallurgical operations, including heap leach facilities; and pits, ponds, and lagoons whether lined or not, must have submitted a notification of the nature and location of the discharge to the Executive Secretary before February 10, 1990 and must submit an application for a ground water discharge permit within one year after receipt of written notice from the Executive Secretary that a ground water discharge permit is required.

6.2 GROUND WATER DISCHARGE PERMIT BY RULE

A. Except as provided in R317-6-6.2.C, the following facilities are considered to be permitted by rule and are not required to obtain a discharge permit under R317-6-6.1 or comply with R317-6-6.3 through R317-6-6.7, R317-6-6.9 through R317-6-6.11, R317-6-6.13, R317-6-6.16, R317-6-6.17 and R317-6-6.18:

1. facilities with effluent or leachate which has been demonstrated to the satisfaction of the Executive Secretary to conform and will not deviate from the applicable class TDS limits, ground water quality standards, protection levels or other permit limits and which does not contain any contaminant that may present a threat to human health, the environment or its potential beneficial uses of the ground water. The Executive Secretary may require samples to be analyzed for the presence of contaminants before the effluent or leachate discharges directly or indirectly into ground water. If the discharge is by seepage through natural or altered natural materials, the Executive Secretary may require samples of the solution be analyzed for the presence of pollutants before or after seepage;

2. water used for watering of lawns, gardens, or shrubs or for irrigation for the revegetation of a disturbed land area except for the direct land application of wastewater;

3. application of agricultural chemicals including fertilizers, herbicides and pesticides including but not limited to, insecticides fungicides, rodenticides and fumigants when used in accordance with current scientifically based manufacturer's recommendations for the crop, soil, and climate and in accordance with state and federal statutes, regulations, permits, and orders adopted to avoid ground water pollution;

4. water used for irrigated agriculture except for the direct land application of wastewater from municipal, industrial or mining facilities;

5. flood control systems including detention basins, catch basins and wetland treatment facilities used for collecting or conveying storm water runoff;

6. natural ground water seeping or flowing into conventional mine workings which re-enters the ground by natural gravity flow prior to pumping or transporting out of the mine and without being used in any mining or metallurgical process;

7. leachate which results entirely from the direct natural infiltration of precipitation through undisturbed materials;

8. wells and facilities regulated under the underground injection control (UIC) program;

9. land application of livestock wastes, within expected crop nitrogen uptake;

10. individual subsurface wastewater disposal systems approved by local health departments or large subsurface wastewater disposal systems approved by the Board;

11. produced water pits, and other oil field waste treatment, storage, and disposal facilities regulated by the Division of Oil, Gas, and Mining in accordance with Section 40-6-5(3)(d) and R649-9, Disposal of Produced Water;

12. reserve pits regulated by the Division of Oil, Gas and Mining in accordance with Section 40-6-5(3)(a) and R649-3-7, Drilling and Operating Practices;

13. storage tanks installed or operated under regulations adopted by the Utah Solid and Hazardous Waste Control Board;

14. coal mining operations or facilities regulated under the Coal Mining and Reclamation Act by the Utah Division of Oil, Gas, and Mining (DOGM). The submission of an application for ground water discharge permit under R317-6-6.2.C may be required only if the Executive Secretary, after consideration of recommendations, if any, by DOGM, determines that the discharge violates applicable ground water quality standards, applicable Class TDS limits, or is interfering with a reasonable foreseeable beneficial use of the ground water. DOGM is not required to establish any administrative or regulatory requirements which are in addition to the rules of DOGM for coal mining operations or facilities to implement these ground water regulations;

15. hazardous waste or solid waste management units managed or undergoing corrective action under R315-1 through R315-14;

16. solid waste landfills permitted under the requirements of R315-303;

17. animal feeding operations, as defined in UAC R317-8-3.5(2) that use liquid waste handling systems, which are not located within Zone 1 (100[?] feet) for wells in a confined aquifer or Zone 2 (250 day time of travel) for wells and springs in unconfined aquifers, in accordance with the Public Drinking Water [Rule] Regulations UAC R309-113, and which meet either of the following criteria:

a) operations constructed prior to the effective date of this rule which [incorporate low volume] incorporated liquid waste handling systems [of] and which are either less than 4 million gallons capacity or serve fewer than 1000 animal units, or

b. operations with fewer than the following numbers of [animals] confined animals:

i. 1,[000] 500 slaughter and feeder cattle,

ii. [700] 1,050 mature dairy cattle, whether milked or dry cows,

iii. [2]3,[500] 750 swine each weighing over 25 kilograms (approximately 55 pounds),[for facilities without animal waste collection and treatment systems approved by the Executive Secretary,]

iv. [1,000,000 pounds steady state live animal weight of swine for facilities with animal waste collection and treatment systems for which a construction permit has been issued by the

Executive Secretary,

- ~~v. 500~~ 18,750 swine each weighing 25 kilograms or less (approximately 55 pounds),
v. 750 horses,
vi. 1~~[0]~~ 5,000 sheep or lambs,
vii. ~~[55,000]~~ 82,500 turkeys,
viii. 1~~[0]~~ 50,000 laying hens or broilers~~[-, if the facility has]~~ that use continuous ~~[over flow]~~ overflow watering but dry handle wastes,
ix. ~~[30]~~ 45,000 hens or broilers, ~~[if the facility has a liquid manure handling system,]~~
x. ~~[5,000]~~ 7,500 ducks, or
xi. 1, ~~[000]~~ 500 animal units[:]
18. animal feeding operations, as defined in UAC R317-8-3.5(2), which do not utilize liquid waste handling systems;
19. mining, processing or milling facilities handling less than 10 tons per day of metallic and/or nonmetallic ore and waste rock, not to exceed 2500 tons/year in aggregate unless the processing or milling uses chemical leaching;
20. pipelines and above-ground storage tanks;
21. drilling operations for metallic minerals, nonmetallic minerals, water, hydrocarbons, or geothermal energy sources when done in conformance with applicable regulations of the Utah Division of Oil, Gas, and Mining or the Utah Division of Water Rights;
22. land application of municipal sewage sludge for beneficial use, at or below the agronomic rate and in compliance with the requirements of 40 CFR 503, July 1, ~~[1993]~~ 2000 edition;
23. land application of municipal sewage sludge for mine-reclamation at a rate higher than the agronomic rate and in compliance with 40 CFR 503, July 1, ~~[1993]~~ 2000 edition;
24. municipal wastewater treatment lagoons receiving no wastewater from a significant industrial discharger as defined in R317-8-8.2(12); and
25. facilities and modifications thereto which the Executive Secretary determines after a review of the application will have a de minimis actual or potential effect on ground water quality.
B. No facility permitted by rule under R317-6-6.2.A may cause ground water to exceed ground water quality standards or the applicable class TDS limits in R317-6-3.1 to R317-6-3.7. If the background concentration for affected ground water exceeds the ground water quality standard, the facility may not cause an increase over background. This section, R317-6-6.2B. does not apply to facilities undergoing corrective action under R317-6-6.15A.3.
C. The submission of an application for a ground water discharge permit may be required by the Executive Secretary for any discharge permitted by rule under R317-6-6.2 if it is determined that the discharge may be causing or is likely to cause increases above the ground water quality standards or applicable class TDS limits under R317-6-3 or otherwise is interfering or may interfere with probable future beneficial use of the ground water.
6.3 APPLICATION REQUIREMENTS FOR A GROUND WATER DISCHARGE PERMIT
Unless otherwise determined by the Executive Secretary, the application for a permit to discharge wastes or pollutants to ground water shall include the following complete information:
A. The name and address of the applicant and the name and address of the owner of the facility if different than the applicant. A corporate application must be signed by an officer of the corporation. The name and address of the contact, if different than above, and telephone numbers for all listed names shall be included.
B. The legal location of the facility by county, quarter-quarter section, township, and range.
C. The name of the facility and the type of facility, including the expected facility life.

D. A plat map showing all water wells, including the status and use of each well, topography, springs, water bodies, drainages, and man-made structures within a one-mile radius of the discharge. The plat map must also show the location and depth of existing or proposed wells to be used for monitoring ground water quality.

E. Geologic, hydrologic, and agricultural description of the geographic area within a one-mile radius of the point of discharge, including soil types, aquifers, ground water flow direction, ground water quality, aquifer material, and well logs.

F. The type, source, and chemical, physical, radiological, and toxic characteristics of the effluent or leachate to be discharged; the average and maximum daily amount of effluent or leachate discharged (gpd), the discharge rate (gpm), and the expected concentrations of any pollutant (mg/l) in each discharge or combination of discharges. If more than one discharge point is used, information for each point must be given separately.

G. Information which shows that the discharge can be controlled and will not migrate into or adversely affect the quality of any other waters of the state, including the applicable surface water quality standards, that the discharge is compatible with the receiving ground water, and that the discharge will comply with the applicable class TDS limits, ground water quality standards, class protection levels or an alternate concentration limit proposed by the facility.

H. For areas where the ground water has not been classified by the Board, information on the quality of the receiving ground water sufficient to determine the applicable protection levels.

I. ~~[The]~~ A proposed Sampling and Analysis monitoring plan[;] which conforms to EPA Guidance for Quality Assurance Project Plans, EPA QA/G-5 (EPA/600/R-98/018, February 1998) and includes a description, where appropriate, of the following:

1. ground water monitoring to determine ground water flow direction and gradient, background quality at the site, and the quality of ground water at the compliance monitoring point;
2. installation, use and maintenance of monitoring devices;
3. description of the compliance monitoring area defined by the compliance monitoring points including the dimensions and hydrologic and geologic data used to determine the dimensions;
4. monitoring of the vadose zone;
5. measures to prevent ground water contamination after the cessation of operation, including post-operational monitoring;
6. monitoring well construction and ground water sampling which conform ~~[to A Guide to the Selection of Materials for]~~ where applicable to the Handbook of Suggested Practices for Design and Installation of Ground-Water Monitoring [Well Construction and] Wells (EPA/600/4-89/034, March 1991), ASTM Standards on Ground Water and Vadose Investigations (1996), Practical Guide for Ground Water Sampling (EPA/600/2-85/104, [€] September 198[3]5) and RCRA Ground Water Monitoring Technical Enforcement Guidance Manual (1986), unless otherwise specified by the Executive Secretary;

7. description and justification of parameters to be monitored [-] ;

8. quality assurance and control provisions for monitoring data.

J. The plans and specifications relating to construction, modification, and operation of discharge systems.

K. The description of the ground water most likely to be affected by the discharge, including water quality information of the receiving ground water prior to discharge, a description of the aquifer in which the ground water occurs, the depth to the ground water, the saturated thickness, flow direction, porosity, hydraulic conductivity, and flow systems characteristics.

L. The compliance sampling plan which in addition to the information specified in above item

I includes, where appropriate, provisions for sampling of effluent and for flow monitoring in order to determine the volume and chemistry of the discharge onto or below the surface of the ground and a plan for sampling compliance monitoring points and appropriate nearby water wells. Sampling and analytical methods proposed in the application must conform with the most appropriate methods specified in the following references unless otherwise ~~specified~~ approved by the Executive Secretary:

1. Standard Methods for the Examination of Water and Wastewater, ~~[eighteenth]~~ Twentieth edition, 199[2]8; Library of Congress catalogue number: ISBN:[0-87553-207-1] 0-87553-235-7.

2. E.P.A. Methods, Methods for Chemical Analysis of Water and Wastes, 1983; Stock Number EPA-600/4-79-020.

3. Techniques of Water Resource Investigations of the U.S. Geological Survey, ([1982] 1998); Book [5, ~~Chapter A3~~]9.

4. Monitoring requirements in 40 CFR parts 141 and 142, [1991] 2000 ed., Primary Drinking Water Regulations and 40 CFR parts 264 and 270, [1991] 2000 ed.

5. National Handbook of Recommended Methods for Water-Data Acquisition, GSA-GS edition; Book 85 AD-2777, U.S. Government Printing Office Stock Number 024-001-03489-1.

~~[———6. Manual of Analytical Methods for the Analysis of Pesticide Residues in Humans and Environmental Samples, 1980; Stock Number EPA-600/8-80-038, U.S. Environmental Protection Agency.]~~

M. A description of the flooding potential of the discharge site, including the 100-year flood plain, and any applicable flood protection measures.

N. Contingency plan for regaining and maintaining compliance with the permit limits and for reestablishing best available technology as defined in the permit.

O. Methods and procedures for inspections of the facility operations and for detecting failure of the system.

P. For any existing facility, a corrective action plan or identification of other response measures to be taken to remedy any violation of applicable ground water quality standards, class TDS limits or permit limit established under R317-6-6.4E. which has resulted from discharges occurring prior to issuance of a ground water discharge permit.

Q. Other information required by the Executive Secretary.

R. A closure and post closure management plan.

6.4 ISSUANCE OF DISCHARGE PERMIT

A. The Executive Secretary may issue a ground water discharge permit for a new facility if the Executive Secretary determines, after reviewing the information provided under R317-6-6.3, that:

1. the applicant demonstrates that the applicable class TDS limits, ground water quality standards, protection levels, and permit limits established under R317-6-6.4E will be met;

2. the monitoring plan, sampling and reporting requirements are adequate to determine compliance with applicable requirements;

3. the applicant is using best available technology to minimize the discharge of any pollutant; and

4. there is no impairment of present and future beneficial uses of the ground water.

B. The Board may approve an alternate concentration limit for a new facility if:

1. The applicant submits a petition for an alternate concentration limit showing the extent to which the discharge will exceed the applicable class TDS limits, ground water standards or applicable protection levels and demonstrates that:

a. the facility is to be located in an area of Class III ground water;

- b. the discharge plan incorporates the use of best available technology;
- c. the alternate concentration limit is justified based on substantial overriding social and economic benefits; and,
- d. the discharge would pose no threat to human health and the environment.

2. One or more public hearings have been held by the Board in nearby communities to solicit comment.

C. The Executive Secretary may issue a ground water discharge permit for an existing facility provided:

- 1. the applicant demonstrates that the applicable class TDS limits, ground water quality standards and protection levels will be met;
- 2. the monitoring plan, sampling and reporting requirements are adequate to determine compliance with applicable requirements;
- 3. the applicant utilizes treatment and discharge minimization technology commensurate with plant process design capability and similar or equivalent to that utilized by facilities that produce similar products or services with similar production process technology; and,
- 4. there is no current or anticipated impairment of present and future beneficial uses of the ground water.

D. The Board may approve an alternate concentration limit for a pollutant in ground water at an existing facility or facility permitted by rule under R317-6-6.2 if the applicant for a ground water discharge permit shows the extent the discharge exceeds the applicable class TDS limits, ground water quality standards and applicable protection levels that correspond to the otherwise applicable ground water quality standards and demonstrates that:

- 1. steps are being taken to correct the source of contamination, including a program and timetable for completion;
- 2. the pollution poses no threat to human health and the environment; and
- 3. the alternate concentration limit is justified based on overriding social and economic benefits.

E. An alternate concentration limit, once adopted by the Board under R317-6-6.4B or R317-6-6.4D, shall be the pertinent permit limit.

F. A facility permitted under this provision shall meet applicable class TDS limits, ground water quality standards, protection levels and permit limits.

G. The Board may modify a permit for a new facility to reflect standards adopted as part of corrective action.

6.5 NOTICE OF INTENT TO ISSUE A GROUND WATER DISCHARGE PERMIT

The Executive Secretary shall publish a notice of intent to approve in a newspaper in the affected area and shall allow 30 days in which interested persons may comment to the Board. Final action will be taken by the Executive Secretary following the 30-day comment period.

6.6 PERMIT TERM

A. The ground water discharge permit term will run for 5 years from the date of issuance. Permits may be renewed for 5-year periods or extended for a period to be determined by the Executive Secretary but not to exceed 5 years.

B. In the event that new ground water quality standards are adopted by the Board, permits may be reopened to extend the terms of the permit or to include pollutants covered by new standards. The holder of a permit may apply for a variance under the conditions outlined in R317-6-6.4.D.

6.7 GROUND WATER DISCHARGE PERMIT RENEWAL

The permittee for a facility with a ground water discharge permit must apply for a renewal or

extension for a ground water discharge permit at least 180 days prior to the expiration of the existing permit. If a permit expires before an application for renewal or extension is acted upon by the Executive Secretary, the permit will continue in effect until it is renewed, extended or denied.

6.8 TERMINATION OF A GROUND WATER DISCHARGE PERMIT BY THE EXECUTIVE SECRETARY

A ground water discharge permit may be terminated or a renewal denied by the Executive Secretary if one of the following applies:

A. noncompliance by the permittee with any condition of the permit where the permittee has failed to take appropriate action in a timely manner to remedy the permit violation;

B. the permittee's failure in the application or during the permit approval process to disclose fully all significant relevant facts at any time;

C. a determination that the permitted facility endangers human health or the environment and can only be regulated to acceptable levels by plan modification or termination; or

D. the permittee requests termination of the permit.

6.9 PERMIT COMPLIANCE MONITORING

A. Ground Water Monitoring

The Executive Secretary may include in a ground water discharge permit requirements for ground water monitoring, and may specify compliance monitoring points where the applicable class TDS limits, ground water quality standards, protection levels or other permit limits are to be met.

The Executive Secretary will determine the location of the compliance monitoring point based upon the hydrology, type of pollutants, and other factors that may affect the ground water quality. The distance to the compliance monitoring points must be as close as practicable to the point of discharge. The compliance monitoring point shall not be beyond the property boundaries of the permitted facility without written agreement of the affected property owners and approval by the Executive Secretary..

B. Performance Monitoring

The Executive Secretary may include in a ground water discharge permit requirements for monitoring performance of best available technology standards.

6.10 BACKGROUND WATER QUALITY DETERMINATION

A. Background water quality contaminant concentrations shall be determined and specified in the ground water discharge permit. The determination of background concentration shall take into account any degradation.

B. Background water quality contaminant concentrations may be determined from existing information or from data collected by the permit applicant. Existing information shall be used, if the permit applicant demonstrates that the quality of the information and its means of collection are adequate to determine background water quality. If existing information is not adequate to determine background water quality, the permit applicant shall submit a plan to determine background water quality to the Executive Secretary for approval prior to data collection. One or more up-gradient, lateral hydraulically equivalent point, or other monitoring wells as approved by the Executive Secretary may be required for each potential discharge site.

C. After a permit has been issued, permittee shall continue to monitor background water quality contaminant concentrations in order to determine natural fluctuations in concentrations. Applicable up-gradient, and on-site ground water monitoring data shall be included in the ground water quality permit monitoring report.

6.11 NOTICE OF COMMENCEMENT AND DISCONTINUANCE OF GROUND WATER DISCHARGE OPERATIONS

A. The permittee shall notify the Division of Water Quality immediately upon commencement

of the ground water discharge and submit a written notice within 30 days of the commencement of the discharge.

B. The permittee shall notify the Division of Water Quality of the date and reason for discontinuance of ground water discharge within 30 days.

6.12 SUBMISSION OF DATA

A. Laboratory Analyses

All laboratory analysis of samples collected to determine compliance with these regulations shall be performed in accordance with standard procedures by the Utah Division of Laboratory Services or by a laboratory certified by the Utah Department of Health.

B. Field Analyses

All field analyses to determine compliance with these regulations shall be conducted in accordance with standard procedures specified in R317-6-6.3.L.

C. Periodic Submission of Monitoring Reports

Results obtained pursuant to any monitoring requirements in the discharge permit and the methods used to obtain these results shall be periodically reported to the Executive Secretary according to the schedule specified in the ground water discharge permit.

6.13 REPORTING OF MECHANICAL PROBLEMS OR DISCHARGE SYSTEM FAILURES

The permittee shall notify the Executive Secretary within 24 hours of the discovery of any mechanical or discharge system failures that could affect the chemical characteristics or volume of the discharge. A written statement confirming the oral report shall be submitted to the Executive Secretary within five days of the failure.

6.14 CORRECTION OF ADVERSE EFFECTS REQUIRED

A. If monitoring or testing indicates that the permit conditions may be or are being violated by ground water discharge operations or the facility is otherwise in an out-of-compliance status, the permittee shall promptly make corrections to the system to correct all violations of the discharge permit.

B. The permittee, operator, or owner may be required to take corrective action as described in R317-6-6.15 if a pollutant concentration has exceeded a permit limit.

6.15 CORRECTIVE ACTION

It is the intent of the Board that the provisions of these regulations should be considered when making decisions under any state or federal superfund action; however, the protection levels are not intended to be considered as applicable, relevant or appropriate clean-up standards under such other regulatory programs.

A. Application of R317-6-6.15

1. Generally - R317-6-6.15 shall apply to any person who discharges pollutants into ground water in violation of Section 19-5-107, or who places or causes to be placed any wastes in a location where there is probable cause to believe they will cause pollution of ground water in violation of Section 19-5-107.

2. Corrective Action shall include, except as otherwise provided in R317-6-6.15, preparation of a Contamination Investigation and preparation and implementation of a Corrective Action Plan.

3. The procedural provisions of R-317-6-6.15 shall not apply to any facility where a corrective or remedial action for ground water contamination, that the Executive Secretary determines meets the substantive standards of this rule, has been initiated under any other state or federal program. Corrective or remedial action undertaken under the programs specified in Table 2 are considered to meet the substantive standards of this rule unless otherwise determined by the Executive Secretary.

TABLE 2

PROGRAM

Leaking Underground Storage Tank, Sections 19-6-401, et seq.

Federal Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Sections 9601, et seq.

Hazardous Waste Mitigation Act, Sections 19-6-301 et seq.

Utah Solid and Hazardous Waste Act, Sections 19-6-101 et seq.

B. Notification and Interim Action

1. Notification - A person who spills or discharges any oil or other substance which may cause pollution of ground waters in violation of Section 19-5-107 shall notify the Executive Secretary within 24 hours of the spill or discharge. A written notification shall be submitted to the Executive Secretary within five days after the spill or discharge.

2. Interim Actions - A person is encouraged to take immediate, interim action without following the steps outlined in R317-6-6.15 if such action is required to control a source of pollutants. Interim action is also encouraged if required to protect public safety, public health and welfare and the environment, or to prevent further contamination that would result in costlier clean-up. Such interim actions should include source abatement and control, neutralization, or other actions as appropriate. A person that has taken these actions shall remain subject to R317-6-6.15 after the interim actions are completed unless he demonstrates that:

- a. no pollutants have been discharged into ground water in violation of 19-5-107; and
- b. no wastes remain in a location where there is probable cause to believe they will cause pollution of ground water in violation of 19-5-107.

C. Contamination Investigation and Corrective Action Plan - General

1. The Executive Secretary may require a person that is subject to R317-6-6.15 to submit for the Executive Secretary's approval a Contamination Investigation and Corrective Action Plan, and may require implementation of an approved Corrective Action Plan. A person subject to this rule who has been notified that the Executive Secretary is exercising his or her authority under R317-6-6.15 to require submission of a Contamination Investigation and Corrective Action Plan, shall, within 30 days of that notification, submit to the Executive Secretary a proposed schedule for those submissions, which may include different deadlines for different elements of the Investigation and Plan. The Executive Secretary may accept, reject, or modify the proposed schedule.

2. The Contamination Investigation or the Corrective Action Plan may, in order to meet the requirements of this Part, incorporate by reference information already provided to the Executive Secretary in the Contingency Plan or other document.

3. The requirements for a Contamination Investigation and a Corrective Action Plan specified in R317-6-6.15.D are comprehensive. The requirements are intended to be applied with flexibility, and persons subject to this rule are encouraged to contact the Executive Secretary's staff to assure its efficient application on a site-specific basis.

4. The Executive Secretary may waive any or all Contamination Investigation and Corrective Action Plan requirements where the person subject to this rule demonstrates that the information that

would otherwise be required is not necessary to the Executive Secretary's evaluation of the Contamination Investigation or Corrective Action Plan. Requests for waiver shall be submitted to the Executive Secretary as part of the Contamination Investigation or Corrective Action Plan, or may be submitted in advance of those reports.

D. Contamination Investigation and Corrective Action Plan - Requirements

1. Contamination Investigation - The contamination investigation shall include a characterization of pollution, a characterization of the facility, a data report, and, if the Corrective Action Plan proposes standards under R317-6-6.15.F.2. or Alternate Corrective Action Concentration Limits higher than the ground water quality standards, an endangerment assessment.

a. The characterization of pollution shall include a description of:

(1) The amount, form, concentration, toxicity, environmental fate and transport, and other significant characteristics of substances present, for both ground water contaminants and any contributing surficial contaminants;

(2) The areal and vertical extent of the contaminant concentration, distribution and chemical make-up; and

(3) The extent to which contaminant substances have migrated and are expected to migrate.

b. The characterization of the facility shall include descriptions of:

(1) Contaminant substance mixtures present and media of occurrence;

(2) Hydrogeologic conditions underlying and, upgradient and downgradient of the facility;

(3) Surface waters in the area;

(4) Climatologic and meteorologic conditions in the area of the facility; and

(5) Type, location and description of possible sources of the pollution at the facility;

(6) Groundwater withdrawals, pumpage rates, and usage within a 2-mile radius.

c. The report of data used and data gaps shall include:

(1) Data packages including quality assurance and quality control reports;

(2) A description of the data used in the report; and

(3) A description of any data gaps encountered, how those gaps affect the analysis and any plans to fill those gaps.

d. The endangerment assessment shall include descriptions of any risk evaluation necessary to support a proposal for a standard under R317-6-6.15.F.2 or for an Alternate Corrective Action Concentration Limit.

e. The Contamination Investigation shall include such other information as the Executive Secretary requires.

2. Proposed Corrective Action Plan

The proposed Corrective Action Plan shall include an explanation of the construction and operation of the proposed Corrective Action, addressing the factors to be considered by the Executive Secretary as specified in R317-6-6.15.E. and shall include such other information as the Executive Secretary requires. It shall also include a proposed schedule for completion.

E. Approval of the Corrective Action Plan

After public notice in a newspaper in the affected area and a 30-day period for opportunity for public review and comment, the Executive Secretary shall issue an order approving, disapproving, or modifying the proposed Corrective Action Plan. The Executive Secretary shall consider the following factors and criteria in making that decision:

1. Completeness and Accuracy of Corrective Action Plan.

The Executive Secretary shall consider the completeness and accuracy of the Corrective Action Plan and of the information upon which it relies.

2. Action Protective of Public Health and the Environment

a. The Corrective Action shall be protective of the public health and the environment.

b. Impacts as a result of any off-site activities shall be considered under this criterion (e.g., the transport and disposition of contaminated materials at an off-site facility).

3. Action Meets Concentration Limits

The Corrective Action shall meet Corrective Action Concentration Limits specified in R317-6-6.15.F, except as provided in R317-6-6.15.G.

4. Action Produces a Permanent Effect

a. The Corrective Action shall produce a permanent effect.

b. If the Corrective Action Plan provides that any potential sources of pollutants are to be controlled in place, any cap or other method of source control shall be designed so that the discharge from the source following corrective action achieves ground water quality standards or, if approved by the Board, alternate corrective action concentration limits (ACACLs). For purposes of this paragraph, sources of pollutants are controlled "in place" even though they are moved within the facility boundaries provided that they are not moved to areas with unaffected ground water.

5. Action May Use Other Additional Measures

The Executive Secretary may consider whether additional measures should be included in the Plan to better assure that the criteria and factors specified in R317-6-6.15.E are met. Such measures may include:

- a. Requiring long-term ground water or other monitoring;
- b. Providing environmental hazard notices or other security measures;
- c. Capping of sources of ground water contamination to avoid infiltration of precipitation;
- d. Requiring long-term operation and maintenance of all portions of the Corrective Action;

and

e. Periodic review to determine whether the Corrective Action is protective of public health and the environment.

F. Corrective Action Concentration Limits

1. Contaminants with specified levels

Corrective Actions shall achieve ground water quality standards or, where applicable, alternate corrective action concentration limits (ACACLs).

2. Contaminants without specified levels

For contaminants for which no ground water quality standard has been established, the proposed Corrective Action Plan shall include proposed Corrective Action Concentration Limits. These levels shall be approved, disapproved or modified by the Executive Secretary after considering U.S. Environmental Protection Agency maximum contaminant level goals, health advisories, risk-based contaminant levels or standards established by other regulatory agencies and other relevant information.

G. Alternate Corrective Action Concentration Limits

An Alternate Corrective Action Concentration Limit that is higher or lower than the Corrective Action Concentration Limits specified in R317-6-6.15.F may be required as provided in the following:

1. Higher Alternate Corrective Action Concentration Limits

A person submitting a proposed Corrective Action Plan may request approval by the Board of an Alternate Corrective Action Concentration Limit higher than the Corrective Action Concentration Limit specified in R317-6-6.15.F. The proposed limit shall be protective of human health, and the environment, and shall utilize best available technology. The Corrective Action Plan shall include

the following information in support of this request:

a. The potential for release and migration of any contaminant substances or treatment residuals that might remain after Corrective Action in concentrations higher than Corrective Action Concentration Limits;

b. An evaluation of residual risks, in terms of amounts and concentrations of contaminant substances remaining following implementation of the Corrective Action options evaluated, including consideration of the persistence, toxicity, mobility, and propensity to bioaccumulate such contaminants substances and their constituents; and

c. Any other information necessary to determine whether the conditions of R317-6-6.15.G have been met.

2. Lower Alternate Corrective Action Concentration Limits

The Board may require use of an Alternate Corrective Action Concentration Limit that is lower than the Corrective Action Concentration Limit specified in R317-6-6.15.F if necessary to protect human health or the environment. Any person requesting that the Board consider requiring a lower Alternate Corrective Action Concentration Limit shall provide supporting information as described in R317-6-6.15.G.3.

3. Protective of human health and the environment

The Alternate Corrective Action Concentration Limit must be protective of human health and the environment. In making this determination, the Board may consider:

- a. Information presented in the Contamination Investigation;
- b. Other relevant cleanup or health standards, criteria, or guidance;
- c. Relevant and reasonably available scientific information;
- d. Any additional information relevant to the protectiveness of a Corrective Action; and
- e. The impact of additional proposed measures, such as those described in R317-6-6.15.E.5.

4. Good cause

An Alternate Corrective Action Concentration Limit shall not be granted without good cause.

a. The Board may consider the factors specified in R317-6-6.15.E in determining whether there is good cause.

b. The Board may also consider whether the proposed remedy is cost-effective in determining whether there is good cause. Costs that may be considered include but are not limited to:

- (1) Capital costs;
- (2) Operation and maintenance costs;
- (3) Costs of periodic reviews, where required;
- (4) Net present value of capital and operation and maintenance costs;
- (5) Potential future remedial action costs; and
- (6) Loss of resource value.

5. Conservative

An Alternate Corrective Action Concentration Limit that is higher than the Corrective Action Concentration Limits specified in R317-6-6.15.F must be conservative. The Board may consider the concentration level that can be achieved using best available technology if attainment of the Corrective Action Concentration Limit is not technologically achievable.

6. Relation to background and existing conditions

a. The Board may consider the relationship between the Corrective Action Concentration Limits and background concentration limits in considering whether an Alternate Corrective Action Concentration Limit is appropriate.

b. No Alternate Corrective Action Concentration Limit higher than existing ground water

contamination levels or ground water contamination levels projected to result from existing conditions will be granted.

6.16 OUT-OF-COMPLIANCE STATUS

A. Accelerated Monitoring for Probable Out-of-Compliance Status

If the ~~[concentration]~~ value of a single analysis of a pollutant concentration in any compliance monitoring sample exceeds an applicable permit limit, the facility shall:

1. Notify the Executive Secretary in writing within 30 days of receipt of data;
2. ~~[Initiate]~~ Immediately initiate monthly sampling if the value exceeds both the background concentration of the pollutant by two standard deviations and an applicable permit limit, unless the Executive Secretary determines that other periodic sampling is appropriate, for a period of two months or until the compliance status of the facility can be determined.

B. Violation of Permit Limits

Out-of-compliance status exists when:

1. The value for two consecutive samples from a compliance monitoring point exceeds:
 - a. one or more permit limits; and
 - b. the ~~[mean ground water pollutant]~~ background concentration for that pollutant by two standard deviations (the standard deviation and mean being calculated using values for the ground water pollutant at that compliance monitoring point); or
2. the concentration value of any pollutant in two or more consecutive samples is statistically significantly higher than the applicable permit limit. The statistical significance shall be determined using the statistical methods described in Statistical Methods for Evaluating Ground Water Monitoring Data from Hazardous Waste Facilities, Vol. 53, No. 196 of the Federal Register, Oct. 11, 1988 and supplemental guidance in Guidance For Data Quality Assessment (EPA/600/R-96/084 January 1998).

C. Failure to Maintain Best Available Technology Required by Permit

1. Permittee to Provide Information

In the event that the permittee fails to maintain best available technology or otherwise fails to meet best available technology standards as required by the permit, the permittee shall submit to the Executive Secretary a notification and description of the failure according to R317-6-6.13. Notification shall be given orally within 24 hours of the permittee's discovery of the failure of best available technology, and shall be followed up by written notification, including the information necessary to make a determination under R317-6-6.16.C.2, within five days of the permittee's discovery of the failure of best available technology.

2. Executive Secretary

The Executive Secretary shall use the information provided under R317-6-6.16.C.1 and any additional information provided by the permittee to determine whether to initiate a compliance action against the permittee for violation of permit conditions. The Executive Secretary shall not initiate a compliance action if the Executive Secretary determines that the permittee has met the standards for an affirmative defense, as specified in R317-6-6.16.C.3.

3. Affirmative Defense

In the event a compliance action is initiated against the permittee for violation of permit conditions relating to best available technology, the permittee may affirmatively defend against that action by demonstrating the following:

- a. The permittee submitted notification according to R317-6-6.13;
- b. The failure was not intentional or caused by the permittee's negligence, either in action or in failure to act;
- c. The permittee has taken adequate measures to meet permit conditions in a timely manner

or has submitted to the Executive Secretary, for the Executive Secretary's approval, an adequate plan and schedule for meeting permit conditions; and

d. The provisions of 19-5-107 have not been violated.

6.17 PROCEDURE WHEN A FACILITY IS OUT-OF-COMPLIANCE

A. If a facility is out of compliance the following is required:

1. The permittee shall notify the Executive Secretary of the out of compliance status within 24 hours after detection of that status, followed by a written notice within 5 days of the detection.

2. The permittee shall initiate monthly sampling, unless the Executive Secretary determines that other periodic sampling is appropriate, until the facility is brought into compliance.

3. The permittee shall prepare and submit within 30 days to the Executive Secretary a plan and time schedule for assessment of the source, extent and potential dispersion of the contamination, and an evaluation of potential remedial action to restore and maintain ground water quality and insure that permit limits will not be exceeded at the compliance monitoring point and best available technology will be reestablished.

4. The Executive Secretary may require immediate implementation of the contingency plan submitted with the original ground water discharge permit in order to regain and maintain compliance with the permit limit standards at the compliance monitoring point or to reestablish best available technology as defined in the permit.

5. Where it is infeasible to re-establish BAT as defined in the permit, the permittee may propose an alternative BAT for approval by the Executive Secretary.

6.18 GROUND WATER DISCHARGE PERMIT TRANSFER

A. The permittee shall give written notice to the Executive Secretary of any transfer of the ground water discharge permit, within 30 days of the transfer.

B. The notice shall include a written agreement between the existing and new permittee establishing a specific date for transfer of permit responsibility, coverage and liability.

6.19 ENFORCEMENT

These rules are subject to enforcement under Section 19-5-115 of the Utah Water Quality Act.

6.20 HEARING AND APPEALS

A. Any person may request a hearing before the Board who:

1. is denied a permit by rule by the Executive Secretary under R317-6-6.2;

2. objects to a discharge limit established by the Executive Secretary;

3. objects to conditions or limitations proposed or established by the Executive Secretary in the ground water discharge permit; or

4. objects to monitoring, sampling, information, or other requests or requirements made by the Executive Secretary;

5. objects to denial by the Executive Secretary of a proposed Corrective Action Plan under R317-6-6.15; or

6. objects to conditions proposed or established by the Executive Secretary in a Corrective Action Plan under R317-6-6.15.

B. Any person who is denied a permit or whose permit is proposed to be terminated or revoked by the Executive Secretary may appeal that decision to the Executive Director of the Department of Environmental Quality pursuant to Section 19-5-112(2).

C. Hearings under R317-6 will be conducted using the Utah Administrative Procedures Act, Title 63, Chapter 46b.

KEY: water quality, ground water

March 20, 1995

19-5

Notice of Continuation December 12, 1997